B. Brumback

RAW SEQUENCE LISTING   DATE: 09/06/2001
PATENT APPLICATION: US/09/491,146   TIME: 09:10:36

Input Set : N:\Crf3\RULE60\09491146.txt
Output Set: N:\CRF3\09062001\I491146.raw

SEQUENCE LISTING
```
 3 (1) GENERAL INFORMATION:
 5       (i) APPLICANT: KHUDYAKOV, YURI E.
 6                      FIELDS, HOWARD A.
 8      (ii) TITLE OF INVENTION: MOSAIC PROTEIN AND RESTRICTION
 9                      ENDONUCLEASE ASSISTED LIGATION METHOD FOR MAKING THE SAME
11     (iii) NUMBER OF SEQUENCES: 55
13      (iv) CORRESPONDENCE ADDRESS:
14           (A) ADDRESSEE: JONES & ASKEW, LLP
15           (B) STREET: 191 Peachtree Street, N.W., 37th Floor
16           (C) CITY: Atlanta
17           (D) STATE: GA
18           (E) COUNTRY: USA
19           (F) ZIP: 30303-1769
21       (v) COMPUTER READABLE FORM:
22           (A) MEDIUM TYPE: Floppy disk
23           (B) COMPUTER: IBM PC compatible
24           (C) OPERATING SYSTEM: PC-DOS/MS-DOS
25           (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
27      (vi) CURRENT APPLICATION DATA:
28           (A) APPLICATION NUMBER: US/09/491,146
29           (B) FILING DATE: 25-Jan-2000
30           (C) CLASSIFICATION:
32     (vii) PRIOR APPLICATION DATA:
33           (A) APPLICATION NUMBER: 08/921,887
34           (B) FILING DATE:
37    (viii) ATTORNEY/AGENT INFORMATION:
38           (A) NAME: WARREN, WILLIAM L.
39           (B) REGISTRATION NUMBER: 36,714
40           (C) REFERENCE/DOCKET NUMBER: 03063-0380
42      (ix) TELECOMMUNICATION INFORMATION:
43           (A) TELEPHONE: 404-818-3700
44           (B) TELEFAX: 404-818-3799
47 (2) INFORMATION FOR SEQ ID NO: 1:
49       (i) SEQUENCE CHARACTERISTICS:
50           (A) LENGTH: 55 base pairs
51           (B) TYPE: nucleic acid
52           (C) STRANDEDNESS: single
53           (D) TOPOLOGY: linear
55      (ii) MOLECULE TYPE: cDNA
57     (iii) HYPOTHETICAL: NO
59      (iv) ANTI-SENSE: NO
61       (v) FRAGMENT TYPE: internal
63      (vi) ORIGINAL SOURCE:
64           (A) ORGANISM: Hepatitis virus
68      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
70 CCCCGAATTC AACCGAAACC GCAACGTAAA ACCAAACGTA ACACCATTCG TCGTC          55
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C--> 28
C--> 29

ENTERED

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Input Set : N:\Crf3\RULE60\09491146.txt
Output Set: N:\CRF3\09062001\I491146.raw

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72 (2) INFORMATION FOR SEQ ID NO: 2:
74      (i) SEQUENCE CHARACTERISTICS:
75          (A) LENGTH: 69 base pairs
76          (B) TYPE: nucleic acid
77          (C) STRANDEDNESS: single
78          (D) TOPOLOGY: linear
80      (ii) MOLECULE TYPE: cDNA
82     (iii) HYPOTHETICAL: NO
84      (iv) ANTI-SENSE: NO
86       (v) FRAGMENT TYPE: internal
88      (vi) ORIGINAL SOURCE:
89          (A) ORGANISM: Hepatitis virus
93      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
95 CCCCGGATCC TATTTCGGAC CAACGATCTG ACCACCACCC GGGAATTTAA CGTCCTGCGG      60
97 ACGACGAAT                                                            69
99 (2) INFORMATION FOR SEQ ID NO: 3:
101     (i) SEQUENCE CHARACTERISTICS:
102         (A) LENGTH: 54 base pairs
103         (B) TYPE: nucleic acid
104         (C) STRANDEDNESS: single
105         (D) TOPOLOGY: linear
107     (ii) MOLECULE TYPE: cDNA
109    (iii) HYPOTHETICAL: NO
111     (iv) ANTI-SENSE: NO
113      (v) FRAGMENT TYPE: internal
115     (vi) ORIGINAL SOURCE:
116         (A) ORGANISM: Hepatitis virus
120     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
122 CCCCGAATTC AACCGAAACC GCAACGTCAG ACCAAACGTA ACACCAACCG TCGT           54
124 (2) INFORMATION FOR SEQ ID NO: 4:
126     (i) SEQUENCE CHARACTERISTICS:
127         (A) LENGTH: 70 base pairs
128         (B) TYPE: nucleic acid
129         (C) STRANDEDNESS: single
130         (D) TOPOLOGY: linear
132     (ii) MOLECULE TYPE: cDNA
134    (iii) HYPOTHETICAL: NO
136     (iv) ANTI-SENSE: NO
138      (v) FRAGMENT TYPE: internal
140     (vi) ORIGINAL SOURCE:
141         (A) ORGANISM: Hepatitis virus
145     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
147 CCCCGGATCC TATTTCGGAC CAACGATCTG ACCACCACCC GGGAATTTAA CGTCCTGCGG      60
149 ACGACGGTTG                                                           70
151 (2) INFORMATION FOR SEQ ID NO: 5:
153     (i) SEQUENCE CHARACTERISTICS:
154         (A) LENGTH: 51 base pairs
155         (B) TYPE: nucleic acid
156         (C) STRANDEDNESS: single
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157            (D) TOPOLOGY: linear
159      (ii) MOLECULE TYPE: cDNA
161     (iii) HYPOTHETICAL: NO
163      (iv) ANTI-SENSE: NO
165       (v) FRAGMENT TYPE: internal
167      (vi) ORIGINAL SOURCE:
168            (A) ORGANISM: Hepatitis virus
172      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
174 CCCCGAATTC AACCGAAACC GCAACGTAAA ACCAAACGTA ACACCTACCG T        51
176 (2) INFORMATION FOR SEQ ID NO: 6:
178       (i) SEQUENCE CHARACTERISTICS:
179            (A) LENGTH: 73 base pairs
180            (B) TYPE: nucleic acid
181            (C) STRANDEDNESS: single
182            (D) TOPOLOGY: linear
184      (ii) MOLECULE TYPE: cDNA
186     (iii) HYPOTHETICAL: NO
188      (iv) ANTI-SENSE: NO
190       (v) FRAGMENT TYPE: internal
192      (vi) ORIGINAL SOURCE:
193            (A) ORGANISM: Hepatitis virus
197      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
199 CCCCGGATCC TATTTCGGAC CAACGATCTG ACCACCACCC GGGAATTTAA CGTCCTGCGG   60
201 ACGACGGTAG GTG                                                     73
203 (2) INFORMATION FOR SEQ ID NO: 7:
205       (i) SEQUENCE CHARACTERISTICS:
206            (A) LENGTH: 55 base pairs
207            (B) TYPE: nucleic acid
208            (C) STRANDEDNESS: single
209            (D) TOPOLOGY: linear
211      (ii) MOLECULE TYPE: cDNA
213     (iii) HYPOTHETICAL: NO
215      (iv) ANTI-SENSE: NO
217       (v) FRAGMENT TYPE: internal
219      (vi) ORIGINAL SOURCE:
220            (A) ORGANISM: Hepatitis virus
224      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
226 CCCCGAATTC AACCGAAACC GCAACGTAAA CCGAACCGTA ACACCAACCG TCGTC        55
228 (2) INFORMATION FOR SEQ ID NO: 8:
230       (i) SEQUENCE CHARACTERISTICS:
231            (A) LENGTH: 69 base pairs
232            (B) TYPE: nucleic acid
233            (C) STRANDEDNESS: single
234            (D) TOPOLOGY: linear
236      (ii) MOLECULE TYPE: cDNA
238     (iii) HYPOTHETICAL: NO
240      (iv) ANTI-SENSE: NO
242       (v) FRAGMENT TYPE: internal
244      (vi) ORIGINAL SOURCE:
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            RAW SEQUENCE LISTING              DATE: 09/06/2001
            PATENT APPLICATION:  US/09/491,146    TIME: 09:10:36

            Input Set : N:\Crf3\RULE60\09491146.txt
            Output Set: N:\CRF3\09062001\I491146.raw

245            (A) ORGANISM: Hepatitis virus
249    (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
251 CCCCGGATCC TATTTCGGAC CAACGATCTG ACCACCACCC GGGAATTTAA CGTCCTGCGG      60
253 ACGACGGTT                                                             69
255 (2) INFORMATION FOR SEQ ID NO: 9:
257        (i) SEQUENCE CHARACTERISTICS:
258            (A) LENGTH: 63 base pairs
259            (B) TYPE: nucleic acid
260            (C) STRANDEDNESS: single
261            (D) TOPOLOGY: linear
263    (ii) MOLECULE TYPE: cDNA
265    (iii) HYPOTHETICAL: NO
267    (iv) ANTI-SENSE: NO
269    (v) FRAGMENT TYPE: internal
271    (vi) ORIGINAL SOURCE:
272            (A) ORGANISM: Hepatitis virus
276    (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
278 CCCCGAATTC AACCGAAACC GCAACGTCAG CCGAAACGTA ACACCCCGCG TCGTCCGCAG      60
280 GAC                                                                   63
282 (2) INFORMATION FOR SEQ ID NO: 10:
284        (i) SEQUENCE CHARACTERISTICS:
285            (A) LENGTH: 60 base pairs
286            (B) TYPE: nucleic acid
287            (C) STRANDEDNESS: single
288            (D) TOPOLOGY: linear
290    (ii) MOLECULE TYPE: cDNA
292    (iii) HYPOTHETICAL: NO
294    (iv) ANTI-SENSE: NO
296    (v) FRAGMENT TYPE: internal
298    (vi) ORIGINAL SOURCE:
299            (A) ORGANISM: Hepatitis virus
303    (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
305 CCCCGGATCC TATTTCGGAC CAACGATCTG ACCACCACCC GGGAATTTAA CGTCCTGCGG      60
308 (2) INFORMATION FOR SEQ ID NO: 11:
310        (i) SEQUENCE CHARACTERISTICS:
311            (A) LENGTH: 55 base pairs
312            (B) TYPE: nucleic acid
313            (C) STRANDEDNESS: single
314            (D) TOPOLOGY: linear
316    (ii) MOLECULE TYPE: cDNA
318    (iii) HYPOTHETICAL: NO
320    (iv) ANTI-SENSE: NO
322    (v) FRAGMENT TYPE: internal
324    (vi) ORIGINAL SOURCE:
325            (A) ORGANISM: Hepatitis virus
329    (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
331 CCCCGAATTC AACCGAAACC GCAACGTAAA ACCAAACGTA ACGCTCACCG TCGTC           55
333 (2) INFORMATION FOR SEQ ID NO: 12:
335        (i) SEQUENCE CHARACTERISTICS:
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RAW SEQUENCE LISTING   DATE: 09/06/2001
PATENT APPLICATION: US/09/491,146   TIME: 09:10:36

        Input Set : N:\Crf3\RULE60\09491146.txt
        Output Set: N:\CRF3\09062001\I491146.raw

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336              (A) LENGTH: 69 base pairs
337              (B) TYPE: nucleic acid
338              (C) STRANDEDNESS: single
339              (D) TOPOLOGY: linear
341         (ii) MOLECULE TYPE: cDNA
343        (iii) HYPOTHETICAL: NO
345         (iv) ANTI-SENSE: NO
347          (v) FRAGMENT TYPE: internal
349         (vi) ORIGINAL SOURCE:
350              (A) ORGANISM: Hepatitis virus
354         (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
356 CCCCGGATCC TATTTCGGAC CAACGATCTG ACCACCACCC GGGAATTTAA CGTCCTGCGG      60
358 ACGACGGTG                                                             69
360 (2) INFORMATION FOR SEQ ID NO: 13:
362          (i) SEQUENCE CHARACTERISTICS:
363              (A) LENGTH: 55 base pairs
364              (B) TYPE: nucleic acid
365              (C) STRANDEDNESS: single
366              (D) TOPOLOGY: linear
368         (ii) MOLECULE TYPE: cDNA
370        (iii) HYPOTHETICAL: NO
372         (iv) ANTI-SENSE: NO
374          (v) FRAGMENT TYPE: internal
376         (vi) ORIGINAL SOURCE:
377              (A) ORGANISM: Hepatitis virus
381         (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:
383 CCCCGAATTC AACCGAAACC GCAACGTAAA AACCAGCGTA ACACCAACCG TCGTC           55
385 (2) INFORMATION FOR SEQ ID NO: 14:
387          (i) SEQUENCE CHARACTERISTICS:
388              (A) LENGTH: 69 base pairs
389              (B) TYPE: nucleic acid
390              (C) STRANDEDNESS: single
391              (D) TOPOLOGY: linear
393         (ii) MOLECULE TYPE: cDNA
395        (iii) HYPOTHETICAL: NO
397         (iv) ANTI-SENSE: NO
399          (v) FRAGMENT TYPE: internal
401         (vi) ORIGINAL SOURCE:
402              (A) ORGANISM: Hepatitis virus
406         (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:
408 CCCCGGATCC TATTTCGGAC CAACGATCTG ACCACCACCC GGGAATTTAA CGTCCTGCGG      60
410 ACGACGGTT                                                             69
412 (2) INFORMATION FOR SEQ ID NO: 15:
414          (i) SEQUENCE CHARACTERISTICS:
415              (A) LENGTH: 55 base pairs
416              (B) TYPE: nucleic acid
417              (C) STRANDEDNESS: single
418              (D) TOPOLOGY: linear
420         (ii) MOLECULE TYPE: cDNA
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VERIFICATION SUMMARY   DATE: 09/06/2001
PATENT APPLICATION: US/09/491,146   TIME: 09:10:37

Input Set : N:\Crf3\RULE60\09491146.txt
Output Set: N:\CRF3\09062001\I491146.raw

L:28 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:29 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:626 M:246 W: Invalid value of Alpha Sequence Header Field, [TOPOLOGY:], SeqNo=23
L:653 M:246 W: Invalid value of Alpha Sequence Header Field, [TOPOLOGY:], SeqNo=24
L:682 M:246 W: Invalid value of Alpha Sequence Header Field, [TOPOLOGY:], SeqNo=25
L:711 M:246 W: Invalid value of Alpha Sequence Header Field, [TOPOLOGY:], SeqNo=26
L:740 M:246 W: Invalid value of Alpha Sequence Header Field, [TOPOLOGY:], SeqNo=27
L:769 M:246 W: Invalid value of Alpha Sequence Header Field, [TOPOLOGY:], SeqNo=28
L:798 M:246 W: Invalid value of Alpha Sequence Header Field, [TOPOLOGY:], SeqNo=29
L:827 M:246 W: Invalid value of Alpha Sequence Header Field, [TOPOLOGY:], SeqNo=30
L:856 M:246 W: Invalid value of Alpha Sequence Header Field, [TOPOLOGY:], SeqNo=31
L:885 M:246 W: Invalid value of Alpha Sequence Header Field, [TOPOLOGY:], SeqNo=32
L:914 M:246 W: Invalid value of Alpha Sequence Header Field, [TOPOLOGY:], SeqNo=33
L:1425 M:246 W: Invalid value of Alpha Sequence Header Field, [TOPOLOGY:], SeqNo=52